

REMARKS

A review of the claims indicates that:

- A) Claims 1—8, 11—18, 20—28, 31 and 34—36 are currently pending.
- B) Claims 2, 4—7, 11, 13—16, 20—23, 25—27, 31, 35 and 36 remain
5 in their original form.
- C) Claims 1, 3, 8, 12, 17, 18, 24, 28, 30 and 34 are currently amended.
- D) Claims 9, 10, 19, 29, 32, 33, 37 and 38 are currently cancelled.

In view of the following remarks, Applicant respectfully requests
reconsideration of the rejected claims.

Traversal of Rejection of Independent Claim 1

Claim 1 was rejected under Section 102(b) as being anticipated by Kousuke
(Japanese 09-001899). The Applicant has amended Claim 1 to recite the elements
of Claims 9 and 10. Original claim 8 depended from claim 9, and both claims are
15 now cancelled. Accordingly, currently amended Claim 1 now assumes the scope
of original Claim 10. Claims 9 and 10 were rejected under Section 103(a) as being
unpatentable over Kousuke in view of Nishikawa (US patent 6,486,968).
Accordingly, the Applicant will address Kousuke and Nishikawa in discussing the
rejection of Claim 1, as amended.

Claim 1 recites a printer display, comprising:

- a control system to monitor progress in processing a print job; and
- a progress indicator to display progress information to indicate the
25 progress in processing the print job, wherein the progress indicator
comprises a virtual page associated with a page of the print job and
**wherein the virtual page is illuminated strip by strip, as strips
within the page of the print job are processed.**

Claim 1 has been amended to recite, “wherein the virtual page is illuminated strip by strip, as strips within an actual page within the print job are processed”. The Applicant respectfully submits that the Kousuke and Nishikawa references, singly and in combination, fail to teach or suggest illumination, in a strip-by-strip manner, of a virtual page, as strips of the actual page are printed. Accordingly, the Applicant respectfully requests that the Section 103 rejection (originally applied to Claims 9 and 10) be removed.

Referring to Kousuke, the Patent Office acknowledges that Kousuke does not teach or suggest aspects of a virtual page used as an indicator of progress (see Office Action mailed 07/23/2007, bottom of page 6 and top of page 7). The Applicant concurs, since the graphical displays taught by Kousuke appear to be limited to the “thermometer-like” progress bar seen as number 83 in Fig. 3 on page 6 of Kousuke. Nothing in such a simple progress bar teaches or suggests a virtual page or strip-by-strip illumination.

In view of the deficiency of Kousuke, the Patent Office turned to Nishikawa. The Nishikawa reference teaches the use of an animation to indicate print progress (see column 2, lines 20—25 and other locations). The animation is referred to as “a graphic” (see 304 in Fig. 3 and the graphic/animation discussion at column 7, lines 58—60). The graphic animation is seen at Figs. 8—16, which show, on a display, a piece of paper moving through the printer.

Accordingly, Nishikawa teaches that progress of a print job (and/or a page thereof) can be depicted by an animation comprising a ‘virtual page’ that is moved through a sequence of locations and/or positions to indicate the progress of the print job. Thus, Nishikawa teaches the location of the animated ‘page’ with

respect to the picture of the printer indicates the progress of the print job. The animated page starts in the paper input slot (Fig. 8) and moves through the interior of the printer (Fig. 11) pops part of the way out the printer mechanism (Fig. 13, then 14) and finally stops in the output tray (Figs. 15 and 16). Therefore,

5 Nishikawa teaches the use of a position of the virtual page as an indicator of how far a print job has progressed. Nishikawa does not teach or suggest wherein the virtual page is illuminated strip by strip as strips within the actual page within the print job are processed.

Moreover, Nishikawa teaches away from illuminating the 'virtual page' in

10 a strip by strip manner. This is because Nishikawa teaches the use of position of the virtual page as an indicator. Having taught the use of "position" of the 'virtual page,' there is nothing in Nishikawa to teach or suggest any benefit and/or need for illuminating the 'virtual page' strip by strip.

In formulating the rejection of Claims 9 and 10, the Patent Office points to

15 Nishikawa at Figs. 3 and 8—16 and column 7 line 60 to column 8 line 5. However, reference to these sections in Nishikawa's disclosure and drawings confirms that Nishikawa teaches the use of position of the virtual page. For example, the sheet is moved from 16% to 33% to 49% (column 7, lines 66—67) etc., as the virtual page is moved through the virtual printer pathway, as illustrated

20 by the figures. Accordingly, Nishikawa fails to teach or suggest a "virtual page is illuminated strip by strip, as strips within the page within the print job are processed", as recited by the claim. Clearly, Nishikawa teaches using a changing position of the virtual page to indicate progress. And, Nishikawa fails to suggest the claimed subject matter since to illuminate strip by strip, as recited by the

Applicant's claim, would obviate any need to move the virtual page, as disclosed and taught by Nishikawa.

Accordingly, the Applicant respectfully submits that Nishikawa fails to teach or suggest virtual page illumination in a strip by strip manner, and
5 respectfully asks that the Patent Office remove the Section 103 rejection of Claim 1, as amended to recite the same scope as Original Claim 10.

Claims 1—11 depend from Claim 1 and are allowable due to their dependence from an allowable base claim. These claims are also allowable for their own recited features that, in combination with those recited in Claim 1, are
10 neither disclosed nor suggested in references of record, either singly or in combination with one another.

Traversal of Rejection of Claims 12—23

Claims 12 and 18 are allowable for at least the reasons that Claim 1 is allowable, and the remarks from above are incorporated herein. As a summary,
15 Claims 12 and 18 show the “virtual page is illuminated strip by strip, as strips within the page of the print job are processed” that is not taught or suggested by the prior art of record. As seen above, the Nishikawa reference teaches away from “strip by strip illumination” since Nishikawa teaches moving the virtual page to indicate progress. Therefore, in view of the remarks and the amendments made to
20 these claims, the Applicant respectfully requests that the rejection of these claims be removed.

Claims 13—17 and 19—23 depend from Claims 12 and 18 and are allowable due to their dependence from an allowable base claim. These claims are also allowable for their own recited features that, in combination with those

recited in their respective base claims, are neither disclosed nor suggested in references of record, either singly or in combination with one another.

Traversal of Rejection of Claims 24—38

Claim 24 recites a method of printer progress display, comprising:

- monitoring processing of strips on a page;
- displaying a graphical representation showing progress of the processing of the strips on the page, wherein the displaying comprises displaying a virtual page associated with a page of the print job and illuminating the virtual page, strip by strip, as strips within the page within the print job are processed, **wherein each strip shows what a portion of the page will look like in much reduced detail and resolution;**
- erasing the virtual page upon completion of printing the page; and
- repeating the displaying of a virtual page comprising strips of reduced detail and resolution of any subsequent pages in a print job.

Claim 24 has been amended much in the same manner as claim 1. Accordingly, the Applicant respectfully incorporates by reference the arguments and remarks made above at this location.

Claim 24 has also been amended to recite that “wherein each strip shows what a portion of the page will look like in much reduced detail and resolution”.

Accordingly, the Applicant recites that the virtual, thumbnail, representation of the page being printed is shown and exposed in a strip by strip manner, wherein each strip adds some detail to what the actual printed page will look like. This was

disclosed by the Applicant at paragraph [0028] and Fig. 5, and other locations.

The limitation of a “strip by strip” preview of the printed page was also in the originally filed claims 19 and 29, for example. Additionally, Claim 38 recited, “incrementally altering the thumbnail image as the print job is processed”. The Applicant respectfully submits that the prior art of record fails to teach or suggest

such an incremental altering of a thumbnail image in response to incremental advancements of the print job, and accordingly, respectfully traverses the rejection.

Claims 19 and 29 were rejected under Section 103 arguments citing
5 Kousuke in combination with Nishikawa (Claim 19) and Roztocil (US 2001/0044868, Claim 29). In response, the Applicant respectfully traverses the rejection.

Referring to the References, Kousuke teaches the general concept of a print status indicator, such as the “thermometer like” bar graph on page (6). Nishikawa
10 enhances the concept by teaching a virtual movie, wherein an image of a blank piece of paper (shown in outline) traces its way through an image of a printer in a manner that corresponds to progress in the printing of an actual page of a print job. And Roztocil teaches that thumbnail images of a pages of a print job can be used in the context of print information organization.

15 However, none of the prior art references teach or suggest the strip by strip generation of a graphical representation of a page of a print job in much reduced detail and resolution. That is, the prior art doesn’t teach or suggest creating a thumbnail that looks like the actual printed page, albeit with much reduced resolution.

20 The Patent Office points to Nishikawa, suggesting that Nishikawa shows a “strip by strip” graphical representation. The Applicant respectfully disagrees. Nishikawa shows a graphical representation that is updated periodically. The periodical update may be associated with the completion of strips in a page of a print job. However, Nishikawa fails to teach or suggest “strip by strip” generation

of “graphical representation of printable images” (original Claim 19) or “wherein each strip shows what that portion of the page will look like in much reduced detail and resolution” (current Claim 24).

5 The Patent Office also pointed to Roztocil, who teaches the use of thumbnail images with resolution of less than the actual printed page. However, Roztocil does not teach or suggest the creation of thumbnail images in a “strip by strip” manner. Instead, Roztocil teaches that the entire image is immediately present.

10 Roztocil cannot be combined with Nishikawa to teach the elements recited by the claim. Nishikawa teaches a “moving picture” wherein a ‘virtual page’ moves to indicate a percentage of completion. Nothing in Nishikawa suggests “strip by strip” generation of an image; instead, Nishikawa uses motion to convey the percentage of completion. Roztocil teaches thumbnail images. Nothing in Roztocil teaches or suggests “strip by strip”. The Roztocil image is simply static.

15 Accordingly, the Applicant respectfully submits that Kausuke, Nishikawa and Roztocil fail to teach or suggest virtual page illumination in a “strip by strip” manner, wherein display of each strip indicates progress through the print job, and respectfully asks that he Patent Office pass claim 24, as amended, for allowance.

20 Claims 25—27 depend from Claim 24 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features that, in combination with those recited in Claim 24, are neither disclosed nor suggested in references of record, either singly or in combination with one another.

Traversal of Rejection of Claims 28—38

Claims 30 and 34 are allowable for at least the reasons that Claim 24 is allowable, and the remarks from above are incorporated herein. As a summary, Claims 30 and 34 recite “illuminating strips as strips within a page within the print job are processed, wherein each illuminated strip shows what a portion of the page will look like in much reduced detail and resolution”, or similar, that is not taught or suggested by the prior art of record. As seen above, the Nishikawa reference teaches away from “strip by strip illumination” since Nishikawa teaches moving the virtual page to indicate progress. Therefore, in view of the remarks and the amendments made to these claims, the Applicant respectfully requests that the rejection of these claims be removed.

Claims 13—17 and 19—23 depend from Claims 12 and 18 and are allowable due to their dependence from an allowable base claim. These claims are also allowable for their own recited features that, in combination with those recited in their respective base claims, are neither disclosed nor suggested in references of record, either singly or in combination with one another.


Conclusion

The Applicant submits that all of the claims are in condition for allowance and respectfully requests that a Notice of Allowability be issued. If the Office’s next anticipated action is not the issuance of a Notice of Allowability, the Applicant respectfully requests that the undersigned attorney be contacted for the purpose of scheduling an interview.

Respectfully Submitted,

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